



# Hawke's Bay Trends

THE STATE OF OUR ENVIRONMENT

November 2022



TE KAUNIHERA Ā-ROHE O TE MATAU-A-MĀUI

## November 2022

We've had four months on the trot of above average rainfall. The weather doesn't seem to have "pivot" in its "wheelhouse" because it's been on a stubborn track that has produced record spring totals for about a quarter of our long term sites. November contributed handily by throwing double the month's average at northern parts of the region. The Heretaunga Plains had more luck dodging the rain but still landed an extra 33%. November's river flows were higher than usual, so too soil moisture and also groundwater levels.

The high rainfall scuppered hopes of an illustrious start to our recreational water quality reporting – a shame because November temperatures were inviting. A new addition to our reporting is the average sea surface temperature measured by our HAWQi buoy, which has sat 4 km off the coast for about a decade. It recorded temperatures that were 0.3°C above its November average.

The warm seas helped our air temperatures bolt to 1.7°C above average during the day and a whopping, blanket tossing 2.5°C overnight.

**Kathleen Kozyniak**  
**Team Leader Marine Air and Land Science**

## SUMMARY November 2022

Wet... again. But very warm.

### December to February Forecast

Temperature Near or above average

Rain Near or above normal

River flows Near or above normal

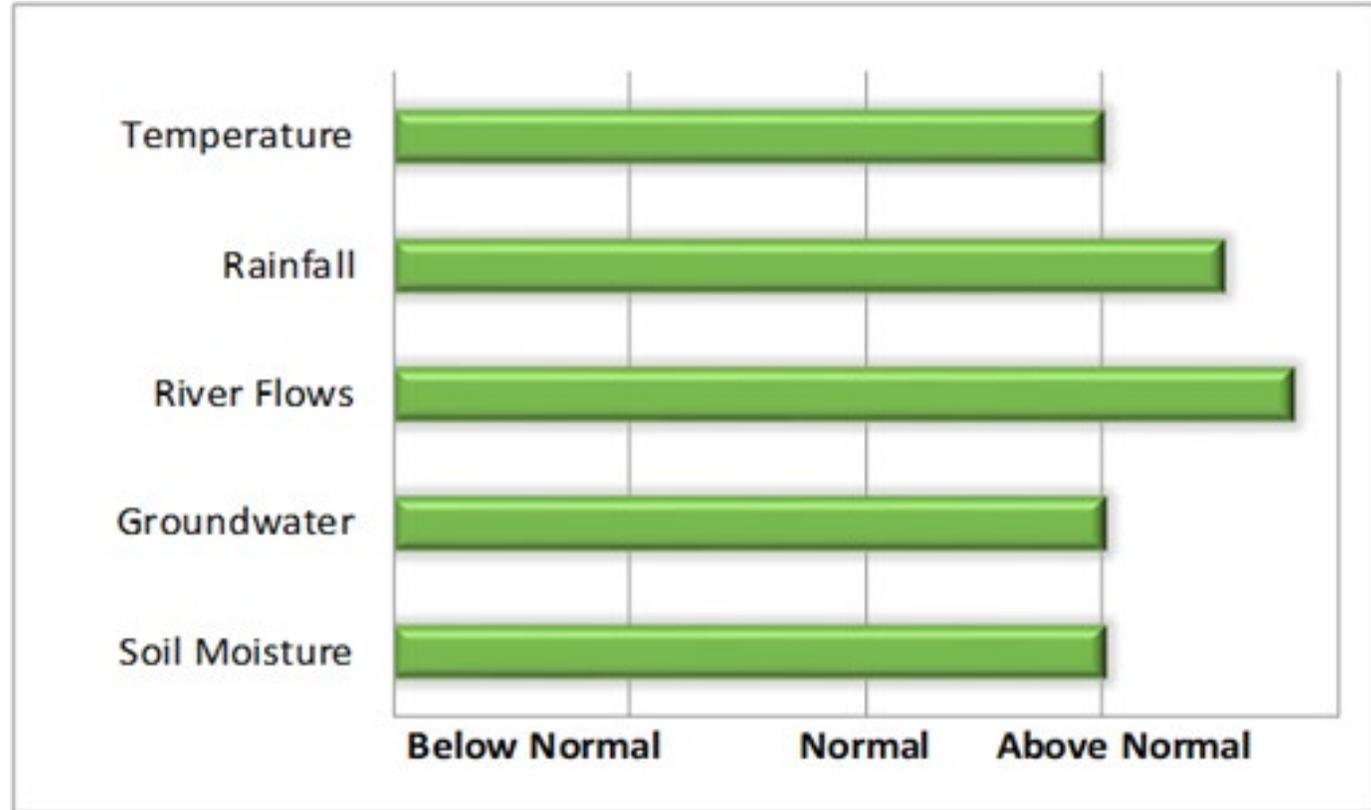
Soil moisture Near normal

source : NIWA

For more information

[www.hbrc.govt.nz](http://www.hbrc.govt.nz)

P: 06 835 9200



## RAINFALL

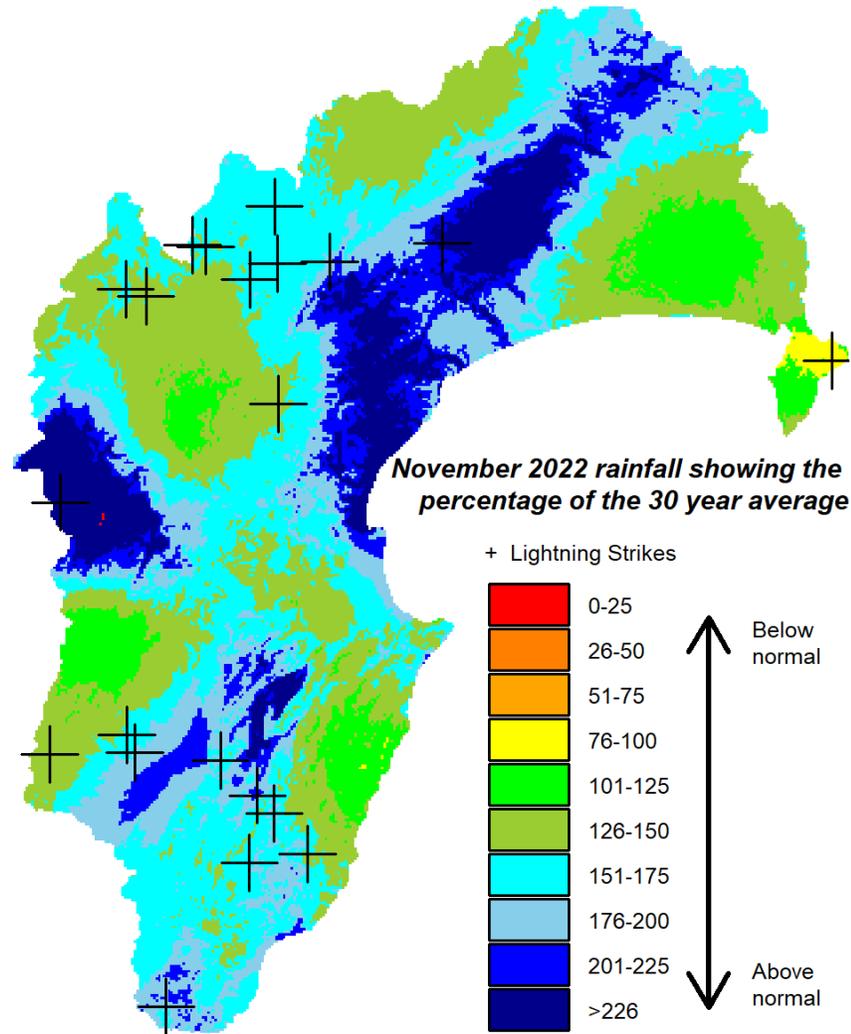
Well above normal, especially in the north.  
21 cloud to ground lightning strikes.

*Lightning counts come from the Blitzortung.org lightning network to which HBRC contributes.*

Percentage of normal November rainfall  
(30 year average)

### For areas in the region:

Waikaremoana	220%
Northern HB	172%
Tangoio	206%
Kaweka	186%
Ruahine	148%
Heretaunga Plains	133%
Ruataniwha Plains	155%
Southern HB	178%
<b>Hawke's Bay Region</b>	<b>175%</b>



## TEMPERATURES

Well above average, hot nights.

Mean Difference from Normal

Maximum Temperature: 1.7°C

Minimum Temperature: 2.5°C

Mean Daily Maximum: 20 °C

Mean Daily Minimum: 11°C

Highest Daily: 29.7 °C

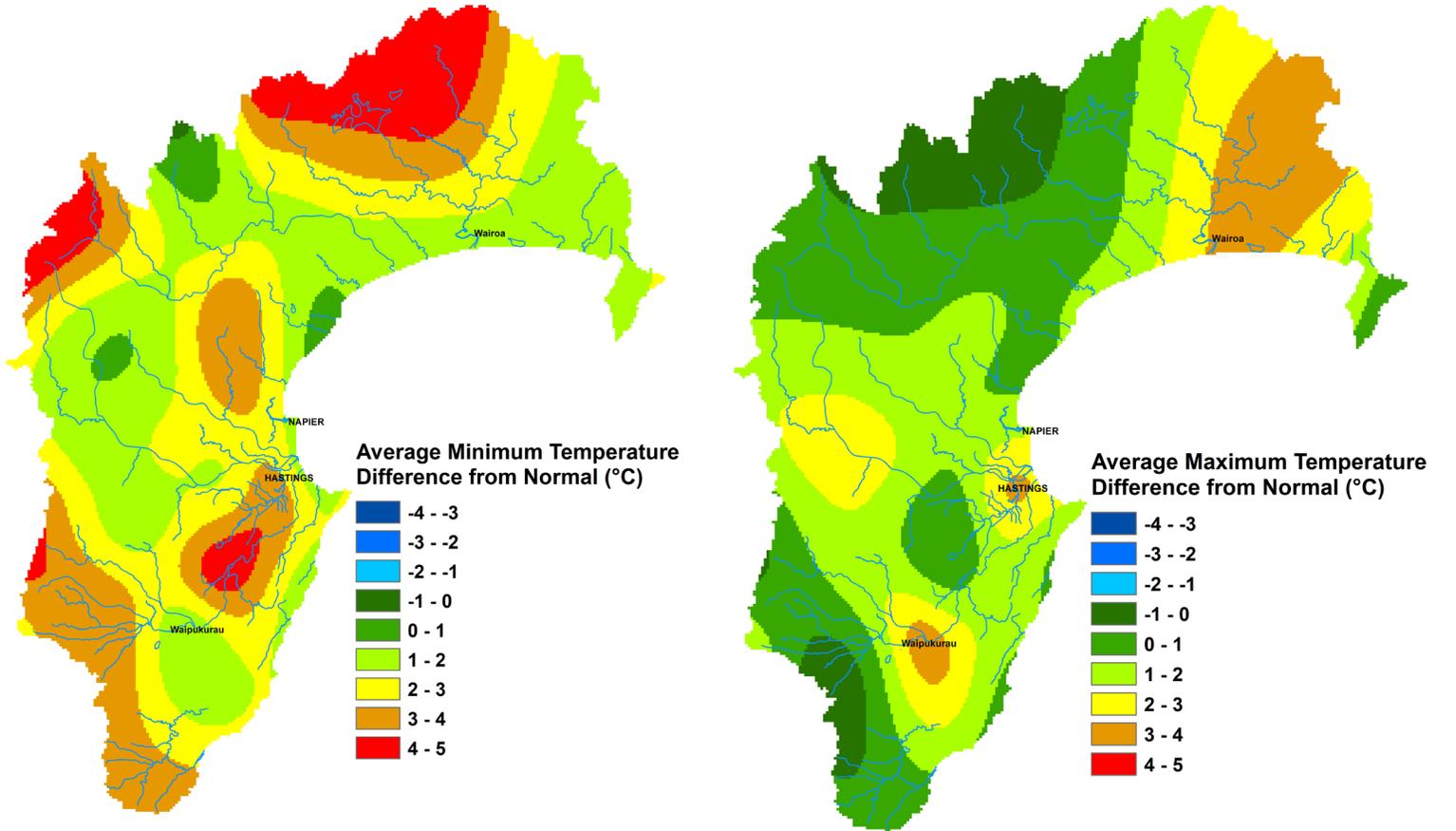
Location: Hastings AWS (Metservice)

Lowest Daily: 4 °C

Location: Gwavas HQ Climate

The average sea surface temperature (SST) for Hawke's Bay in November was 16.4 deg. This was 0.3 deg above the long term average for this month\*. This data was collected from the HBRC coastal water quality monitoring buoy HAWQi which has been located 4km off the coast of Whirinaki since December 2012. HAWQi collects data on water temperature, salinity and clarity at a range of depths as well as weather information. Check out real time data from HAWQi [here](#)

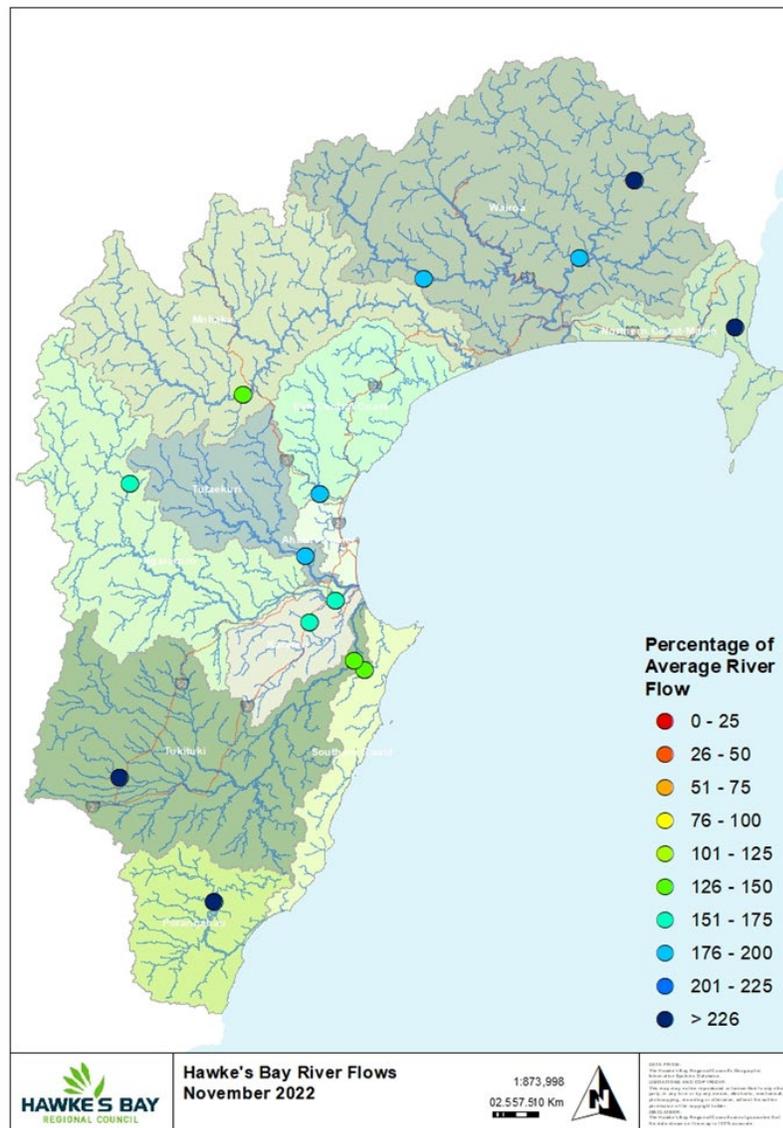
\*Note that long term data has experienced some patchiness due to the challenges of electronic devices interacting with salt water and servicing requirements so the long term average in this instance only includes 7 prior Novembers.



## RIVER FLOW

Percentage of average November flows  
for areas in the region:

Northern Coast – Mahia	401%
Northern HB – Hangaroa River	244%
Northern HB – Wairoa River	190%
Northern HB – Waiau River	186%
Mohaka	146%
Esk-Central Coast	183%
Tūtaekuri	189%
Karamu	151%
Ngaruroro – Kuripapango	174%
Ngaruroro – Chesterhope	174%
Southern Coast	141%
Tukituki – Tukipo River	267%
Tukituki – Tukituki River	150%
Porangahau	577%
<b>Hawke's Bay Region</b>	<b>227%</b>



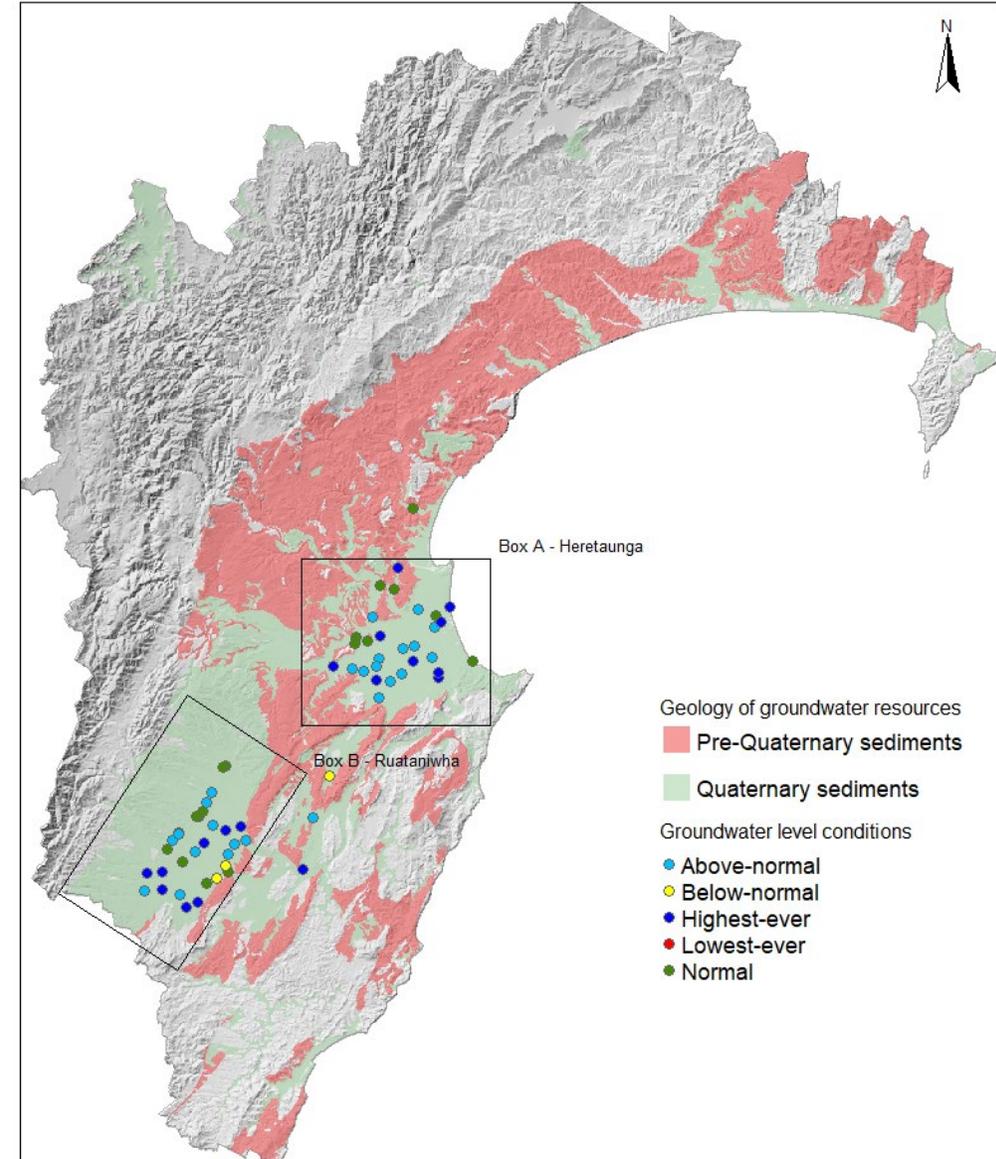
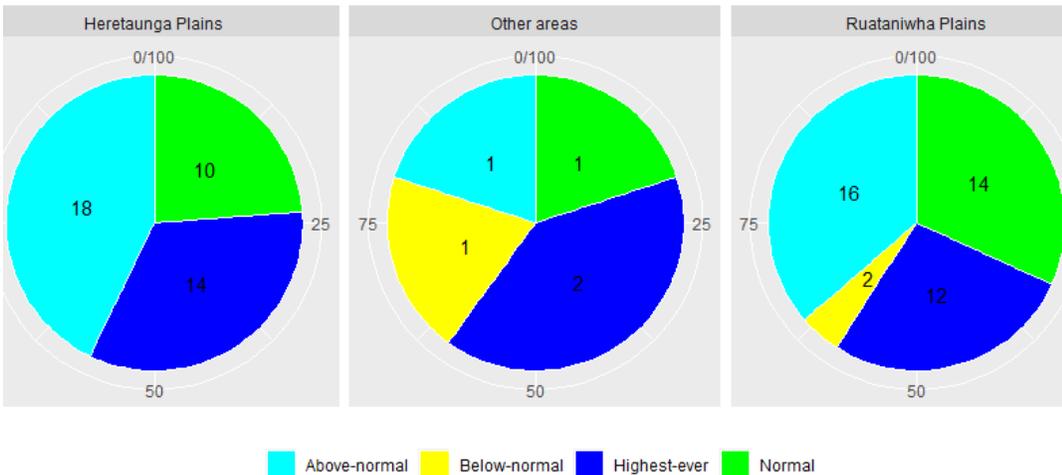
## GROUNDWATER & SOIL MOISTURE

**Soil Moisture:** Above normal.

### Current state of Groundwater levels:

This report compares groundwater levels in November with historic readings to evaluate current conditions. To assess these conditions, we have grouped groundwater levels at each well relative to their monthly percentiles.

Groundwater levels measuring between their monthly minimum and 25th percentile are considered below-normal, groundwater levels measuring between the 25th and 75th percentiles are classed as normal, and groundwater levels measuring between the 75th-maximum are considered above-normal. Wells with less than 5 years of record are excluded from the analysis.



## RECREATIONAL WATER QUALITY

November brought around the warmer water temperatures we've been waiting for, and with it the start of the Recreational Water Quality season for 2022-23 kicked-off. The warmer waters were combatted by scattered rain throughout the month with a good dose in the middle, leading to a number of rainfall related exceedances.

The bright side was only one non-rainfall related exceedance occurred for the month, at Westshore Beach, which was cleared after a resample. Our Northern and Southern beaches were the places to be this month, great news for those making a beach escape over the coming holiday period.



## LONGER FORECAST

One positive note – the negative Indian Ocean Dipole event that contributed to our wet spring has returned to neutral mode. The La Niña event bowls on though, but could ease to neutral conditions late summer or autumn.

Apart from those notes, I could easily regurgitate the same seasonal forecast I had last month... and the month before... and the month before. Sea level pressure is expected to be below normal north of New Zealand and above normal south of the country. I think you know the drill now, that means more easterlies and a prediction of near or above normal rainfall for summer and normal or above normal temperatures.

**Kathleen Kozyniak**  
**Team Leader Marine Air and Land Science**